IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, or claims in the prior application:

LISTING OF CLAIMS:

Claims 1 - 65 (Cancelled)

66. (New) A method for preparing a ligand presenting assembly (LPA) for presentation of peptide sequences having free C-terminal groups comprising the steps of

(a) providing by solid phase synthesis or fragment coupling ligands comprising said peptide sequences, the ligands being attached during the synthesis to a solid phase,

(b) deprotecting any protected N-terminal amino groups while the ligands are still attached to the solid phase,

(c) reacting the ligands having unprotected N-terminal amino groups with an achiral dicarboxylic acid being N-protected on any amino or imino groups so as to provide a construct having a ring structure comprising said carboxylic acid and two ligands comprising said peptide sequences, and

(d)cleaving the construct from the solid phase.

67. (New) A method according to claim 66 further comprising the steps of

(c^1) prior to step (d), deprotecting any N-protected amino or imino groups originating from the carboxylic acid used in step (c),

(c^2) continuing the solid phase synthesis or fragment coupling so as to provide ligands comprising peptide sequences having at least one N-protected N-terminal amino group, and

(c^3) deprotecting any protected N-terminal amino group(s) prior to step (d).

68. (New) The method according to claim 66, wherein the achiral acid used in step (c) is of the general formula

X [(A) $_n$COOH] [(B) $_m$COOH]

wherein n and m independently are an integer of from 1 to 5, X is HN, A and B independently are C_1-$_{10}$ alkyl, C_{2-10} alkenyl, or a cyclic group.

69. (New) The method according to claim 66, wherein the achiral acid is imino acetic acid.

70. (New) The method according to claim 66, wherein the achiral acid is selected among imino diacetic acid, 2-amino malonic acid, 3-amino glutaric acid, glutaric acid, and tricarballylic acid.

71. (New) The method according to claim 66, wherein the peptide sequences comprise naturally occurring amino acids or non-naturally occurring amino acids or a peptide nucleic acid (PNA) sequence.

72. (52) The method according to claim 66, further comprising the step of

(b^1) prior to step (c), attaching a chemical entity selected from fatty acids, antibodies or peptides for directing the LPA to its target, fluorophores, biotin, enzymes, or nucleic acid sequences, to the N-terminal of the achiral dicarboxcylic acid.

73. (New) The method according to claim 72, wherein the chemical entity is biotin-$NH(CH_2)_5CO$.

74. (New) The method according to claim 66, wherein at least one of the peptide sequences comprises all or part of one or more B cell epitopes, all or part of one or more T cell epitopes, or all or part of one or more B and T cell epitopes, or mimics thereof.

75. (New) The method according to claim 74, wherein at least one of the peptide sequences is important for an immune response.

76. (New) The method according to claim 66, wherein at least one of the peptide sequences is derived from OspC protein of *Borrelia burgdorferi*.

77. (New) The method according to claim 66, for preparing an LPA for presentation of the C-terminal sequence Pro-Lys-Lys-Pro (Seq. ID 7) of OspC.

78. (New) The method according to claim 66, wherein at least one of the peptide sequences is derived from the flagellum of *Borrelia burgdorferi*.

79. (New) The method according to claim 66, for preparing an LPA for presentation at least one peptide sequence derived from OspC of *Borrelia burgdorferi* which further comprises at least one peptide sequence derived from the flagellum of Borrelia burgdorferi.

80. (New) The method according to claim 66, for preparing an LPA selected from the group consisting of

[LPA-I] : $FmocN(CH_2CO\text{-}ProValValAlaGluSerProLysLysPro\text{-}OH)_2$,

[LPA-II]: $biotin\text{-}NH(CH_2)_5CON(CH_2CO\text{-}ProValValAlaGluSerProLysLysPro\text{-}OH)_2$,

[LPA-III]: $NH_2CH(CH_2CO\text{-}ProValValAlaGluSerProLysLysPro\text{-}OH)_2$,

[LPA-IV]: H-Lys-NHCH(CH_2CO-ProValValAlaGluSerProLysLysPro-OH)$_2$,

[LPA-VII] : CH_2(CH_2CO-R-Ala-R-AlaLysGluProAsnLysGlyValAsnPro AspGluValoAla)$_2$,

[LPA-VIII]: HC(CH_2CO-LysGluProAsnLysGlyValAsnProAspGluVal ßAla)$_2$COOH,

[LPA-IX]: Fmoc-NHCH(CH_2CO-AspArgValTyrIleHisProPheHisLeu-NH_2)$_2$,

[LPA-X] : Aloc-NHCH(CH_2CO-AspArgValTyrIleHisProPheHisLeu-NH_2)$_2$ and

[LPA-XI]: Fmoc-AspProThrGlnAsnIleProProGly-NHCH(CH_2CO-AspArg ValTyrIleHisProPheHisLeu-NH_2)$_2$.

81.(New) A method for preparing a ligand presenting assembly (LPA) for presentation of peptide sequences from Borrelia burgdorferi having free C-terminal groups comprising the steps of

(a) providing by solid phase synthesis or fragment coupling ligands comprising said peptide sequences, the ligands being attached during the synthesis to a solid phase,

(b) deprotecting any protected N-terminal amino groups while the ligands are still attached to the solid phase,

(c) reacting the ligands having unprotected N-terminal amino groups with an achiral dicarboxylic acid so as to provide a construct having a ring **structure** comprising said carboxylic acid and two ligands comprising said peptide sequences, and

(d) cleaving the construct from the solid phase.

82.(New) A method for preparing a ligand presenting assembly (LPA) for presentation of peptide sequences derived from OcpC protein of Borrelia burgdorferi having free C-terminal groups comprising the steps of

(a) providing by solid phase synthesis or fragment coupling ligands comprising said peptide sequences, the ligands being attached during the synthesis to a solid phase,

(b) deprotecting any protected N-terminal amino groups while the ligands are still attached to the solid phase,

(c) reacting the ligands having unprotected N-terminal amino groups with an achiral dicarboxylic acid so as to provide a construct having a ring structure comprising said carboxylic acid and two ligands comprising said peptide sequences, and

(d) cleaving the construction from the solid phase.

83.(New) A method for preparing a ligand presenting assembly (LPA) for presentation of peptide sequences derived from the flagellum of Borrelia burgdorferi having free C-terminal groups comprising the steps of

(a) providing by solid phase synthesis or fragment coupling ligands comprising said peptide sequences, the ligands being attached during the synthesis to a solid phase,

(b) deprotecting any protected N-terminal amino groups while the ligands are still attached to the solid phase,

(c) reacting the ligands having unprotected N-terminal amino groups with an achiral dicarboxylic acid so as to provide a construct having a ring structure comprising said carboxylic acid and two ligands comprising said peptide sequences, and

(d) cleaving the construct form the solid phase.

Respectfully submitted,

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